## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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| In re Application of:<br>        Bart A. Meltzer et al. | Group Art Unit: 2141 |
| Application No.: 09/633,365 | Examiner: Kenneth R. Coulter |
| Confirmation No.: 3951 | CUSTOMER NO.: 22470 |
| Filed: 07 August 2000 | |
| Title: **Registry for Trading Partners Using Documents for Commerce in Trading Partner Networks** | |

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA  22313-1450

## RESPONSE TO OFFICIAL ACTION FILED 21 JULY 2008

Sir:

Applicants submit the attached documents herewith as evidence of reduction to practice on or before January 21, 1998. Attached is the Response to Official Action filed 21 July 2008 that was previously submitted as part of a related case, namely serial no. 09/173,858. A further Office Action was issued in the related case on 9 October 2008.

# IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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| In re Application of:  Bart Alan MELTZER et al. | Group Art Unit:  2178 |
| Application No.:  09/173,858 | |
| Confirmation No.:  4734 | Examiner: HUYNH, Cong Lac T. |
| Filed:  16 October 1998 | |
| Title:  Documents for Commerce in Trading Partner Networks and Interface Definitions Based on the Documents | CUSTOMER NO.:  22470 |

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA  22313-1450

## RESPONSE TO FINAL OFFICE ACTION MAILED 23 JANUARY 2008

Sir:

In response to the Final Office Action mailed 23 January 2008, Applicants request entry of the following amendments and consideration of the following remarks. An appropriate request for extension of time accompanies this paper.


The Claims and their current status are reflected beginning on page 1.

Remarks begin on page 7.

## TABLE OF CONTENTS

<u>**Table of Exhibits**</u>

<u>**New Exhibits to Inventor Declarations**</u>[1]

     Submitted at this time:


A. Tenenbaum, Jay M., Tripatinder S. Chowdhry and Kevin Hughes, "Eco System: An Internet Commerce Architecture" Computer May 1997: 48-55 (PDF 2)

B. Glushko, Robert J., Jay M. Tenenbaum, Bart Meltzer, "An XML Framework for Agent-based E-commerce" Communications of the ACM, Vol. 42, No. 3, pp. 106-109 & 111-114 (March 1999) (PDF 12)

C. "index.html" from cbl/072 directory (date stamped in 1997) (PDF 22)

D. Selected files from cbl/072 directory (date stamped in 1997) (PDF 29)

E. Selected files from cbl/075 directory (date stamped before January 21, 1998) (PDF 77)

F. "Requirements and Tasks for the January Demo, (Updated 1/6/98 by Kenneth)", file named "demo_req_tasks.html" from Veo/web/dev/documents/old/demo directory (date stamped before January 21, 1997) (PDF 171)

G. "imdesc.xml" from cbl/ingram/01 directory (date stamped before January 21, 1997) (PDF 179)

H. Selected files from cbl/ingram/01 directory (date stamped before January 21, 1997) (PDF 182)

I. Glushko, Robert J., Implementing Domain-specific Commerce Languages with a Common Business Library (delivered July 25, 1998) accessed at http://groups.haas.berkeley.edu/citm/conferences/cec/Presentations/Session3/ glushko.pdf on October 26, 2006 (PDF 249)

J. Excerpts from W3C "note" WSDL version 1.1 (March 15, 2001) accessed at http://www.w3.org/TR/wsdl  (PDF 282)


<u>**RCE Exhibits**</u>

     Submitted after appeal:


[K.] Glushko, LaPlante et al., Document Standards & Technologies for Commerce Applications (delivered Sept. 1, 1998) accessed at

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[1] These Exhibits are collected in a single PDF file. If the PDF file is delivered in its native format, it will include bookmarks.  Otherwise, the page numbers within the 286 page PDF file can be used for quick navigation.

http://www.google.com/search?q=cache:hq5pefHRwksJ:seminars.seyboldreports.com/1
998_san_francisco/ETAPE_26.html+%22cbl+1.0% 22+veo&hl=en&gl=us&ct=clnk&cd=7
on Oct. 26, 2006, 28 pp.

[L.] xCBL.org, About xCBL (copyright 2000) accessed at
http://www.xcbl.org/about.shtml, on July 20, 2007, 2 pp.

[M.] Allen, Common Business Library (CBL) (May 1999) accessed at
http://www.infoloom.com/gcaconfs/WEB/granada99/all.HTM on July 20, 2007, 9 pp.

[N.] Bosak, UBL Update, OASIS Symposium on the Future of XML Vocabularies, Slide
3 (Apr. 25, 2005) viewed at www.oasis-
open.org/events/symposium_2005/slides/bosak.pdf on July 20, 2007, 10 pp.

[O.] Meltzer and Glushko, XML and Electronic Commerce: Enabling the Network
Economy, SIGMOND Record, Vol. 27, No. 4, 21-24 (Dec. 1998), 4 pp.

[P.] Registries and Repositories – XML/SGML Name Registration (about Nov. 1998)
accessed at http://xml.coverpages.org/registryColl.html on October 26, 2006, 30 pp.

[Q.] Microsoft Corp., XML: Enabling Next-Generation Web Applications (Apr. 3, 1998)
accessed at http://msdn.microsoft.com/archive/ default.asp?url=/archive/en-
us/dnarxml/html/xmlwp2.asp on July 21, 2007, 15 pp.

[R.] Bosworth, General Manager, Microsoft Corp., Europe '98, Microsoft's Vision for
XML (May 18-21, 1998) viewed at http://xml.coverpages.org/ bosworthXML98.html on
July 21, 2007, 10 pp.

[S.] Winer, XML-RPC for Newbies (July 14, 1998) viewed at
http://www.scripting.com/davenet/1998/07/14/xmlRpcForNebies.html on July 21, 2007,
6 pp.

[T.] Walsh, Microsoft spearheads protocol push, InfoWorld Electric (July 10, 1998)
viewed at http://infoworld.com/cgi-bin/displayStory.pl? 98071.whsoap.htm on July 21,
2007, 2pp.

[U.] Merrick et al., US 7,028,312, XML Remote Procedure Call (XML-RPC)

**Appeal Exhibits**

Submitted during appeal and resubmitted after appeal:

[J, above] Glushko, Implementing Domain-specific Commerce Languages with a
Common Business Library (delivered July 25, 1998) 32 pp.

[B, above] Glushko et al., An XML Framework for Agent Based E-Commerce,
Communications of the ACM, Vol. 42, No. 3, pp. 106-114 (Mar. 1999), 9 pp.

[V.] Glushko and McGrath, Document Engineering: Analyzing and Designing Documents for Business Informatics and Web Services (MIT Press 2005), 2 pp. excerpt

[W.] Sall, Kenneth B., XML Family of Specifications: A Practical Guide (Addison Wesley 2002), 1 pp.

# RESTATEMENTS AND AMENDMENTS

**In the Claims:**

The following is a list of claims currently pending in this application and their current status.  This listing of claims replaces all prior versions and listings in this application.

1.      (Previously presented)  An interface for  transactions among nodes in a network including a plurality of nodes which execute processes involved in the transactions, the interface being stored in a computer readable medium, comprising:

a machine readable specification of an interface to transaction processes stored in memory accessible by at least one node in the network, including interpretation information providing a definition of an input document, and a definition of an output document, the definitions of the input and output documents comprising respective descriptions of sets of storage units and logical structures for the sets of storage units.

2.      (Original)  The interface of claim 1, wherein the interpretation information includes data type specifications for at least one logical structure in the definitions of the input and output documents.

3.      (Original)  The interface of claim 1, wherein the interpretation information includes at least one data structure mapping predefined sets of storage units for a particular logical structure in the definitions of the input and output documents, to respective entries in a list.

4.      (Original)  The interface of  claim 1, including a repository in memory accessible by at least one node in the network storing a library of logical structures, and

interpretation information for logic structures.

5.      (Original)  The interface of claim 1, wherein the machine readable specification includes a document compliant with a definition of an interface document including logical structures for storing an identifier of a particular transaction, and at least one of definitions and references to definitions of input and output documents for the particular transaction.

6.      (Original)  The interface of claim 1, wherein the machine readable specification includes a document compliant with a definition of an interface document including logical structures for storing an identifier of the interface, and for storing at least one of specifications and references to specifications of a set of one or more transactions supported by the interface.

7.      (Original)  The interface of claim 6, wherein the machine readable specification includes a reference to a specification of a particular transaction, and the specification of the particular transaction includes a document including logical structures for storing at least one of definitions and references to definitions of input and output documents for the particular transaction.

8.      (Original)  The interface of claim 1, wherein the storage units comprise parsed data.

9.      (Original)  The interface of claim 8, wherein the parsed data in at least one of the input and output documents comprises:

character data encoding text characters in the one of the input and output documents, and

markup data identifying sets of storage units according to the logical structure of the one of the input and output documents.

10.     (Original)  The interface of claim 9, wherein at least one of the sets of storage

units encodes a plurality of text characters providing a natural language word.

11.     (Original)  The interface of claim 8, wherein the interpretation information for at

least one of the sets of storage units identified by a particular logical structure of at least

one of the input and output documents,  encodes respective definitions for sets of

parsed characters.

12.     (Original)  The interface of claim 8, wherein the storage units comprise unparsed

data.

13.     (Original)  The interface of claim 1, including a repository stored in memory

accessible by at least one node in the network of document types for use in a plurality of

transactions, and wherein the definition of one of the input and output documents

includes a reference to a document type in the repository.

14.     (Original)  The method of claim 13, wherein the repository of document types

includes a document type for identifying participant processes in the network.

15.     (Original)  The interface of claim 1, wherein the definitions of the input and output

documents comprise document type definitions compliant with a standard Extensible

Markup Language XML.

16.     (Original)  The interface of claim 1, wherein the machine readable data structure

including interpretation information comprises a document organized according to a

document type definition compliant with a standard Extensible Markup Language XML.

17. – 60.  (Cancelled).

61.     (Original)  A method for programming a commercial transaction in a network,

comprising:

        defining a machine readable definition of an input document for a node in

the network including resources to execute a process in the transaction, and a

machine readable definition of an output document for the node, the definitions of

the input and output documents comprising respective descriptions of sets of

storage units and logical structures for the sets of storage units; and

providing interpretation information for the logical structures to the node.

62.    (Original)  The method of claim 61, wherein the interpretation information

includes data type specifications for at least one logical structure in the definitions of the

input and output documents.

63.    (Original)  The method of claim 61, wherein the interpretation information

includes at least one data structure mapping predefined sets of storage units for a

particular logical structure in the definitions of the input and output documents, to

respective entries in a list.

64.    (Original)  The method of  claim 61, the step of providing interpretation

information includes providing a repository in memory accessible by at least one node in

the network storing a library of logical structures, and interpretation information for logic

structures.

65.    (Original)  The method of claim 61, including defining a machine readable

specification of an interface including a document compliant with a definition of an

interface document including logical structures for storing an identifier of a particular

transaction, and at least one of the definitions and references to the  definitions of the

input and output document.

66.    (Original)  The method of claim 61, wherein the storage units comprise parsed

data.

67.    (Original)  The method of claim 66, wherein the parsed data in at least one of  the

input and output documents comprises:

character data encoding text characters in the one of the input and output

documents, and

markup data identifying sets of storage units according to the logical

structure of the one of the input and output documents.

68.     (Original)  The method of claim 67, wherein at least one of the sets of storage

units encodes a plurality of text characters providing a natural language word.

69.     (Original)  The method of claim 67, wherein the interpretation information for at

least one of the sets of storage units identified by a particular logical structure of at least

one of the input and output documents,  encodes respective definitions for sets of

parsed characters.

70.     (Original)  The method of claim 66, wherein the storage units comprise unparsed

data.

71.     (Original)  The method of claim 61, wherein the definitions of the input and output

documents comprise document type definitions compliant with a standard Extensible

Markup Language XML.

72.     (Original)  The method of claim 61, including:

providing a parser to generate event signals in response to logical

structures in the definition of the input document; and

providing event listener programs which respond to the event signals to

execute the process.

73.     (New)  An interface for  transactions among nodes in a network including a

plurality of nodes which execute processes involved in the transactions, the interface

being stored in a computer readable medium, comprising:

a machine readable specification of an interface to an operation stored in memory accessible by at least one node in the network, including interpretation information providing a definition of an input document, and a definition of an output document, the definitions of the input and output documents comprising respective descriptions of sets of storage units and logical structures for the sets of storage units.

74.      (New)  The interface of claim 73, wherein the interpretation information includes data type specifications for at least one logical structure in the definitions of the input and output documents.

## REMARKS

Claims 1-16 and 61-72 have been examined in this application. Claims 17-60 were cancelled long ago.

Claims 73 and 74 are new. They are directed to specification of an interface to an operation, rather than an interface to plural transaction processes. Support for the "operation" nomenclature is found in the application at 17, 25-27, and 86. Applicants do not intend to introduce any new matter with these claims.

## Summary

This submission presents five new declarations from inventors and a non-inventor and approximately 300 pages of corroborating exhibits, based on archives that were discovered after appeal (collectively, the "new evidence"). The new corroborating exhibits include internal memoranda and computer program listings. The new declarations prove actual reduction to practice before January 21, 1998 and address the claims. This actual reduction to practice predates the McKendrick reference by eight months, thereby putting the claims in condition for allowance.

Our second thrust is that declarations are not an exclusive means for establishing, pursuant to 35 USC section 102, that the inventors had an actual, publically demonstrated and reported reduction to practice of the claimed data structures before McKendrick was published. The Office's rules (e.g., current rule 131 and predecessor rule 75) describe a safe harbor for showing actual reduction to practice prior to the date of a reference, but the rules do not and cannot limit the statute or limit the alternative ways of proving actual reduction to practice. *Ex Parte Foster,* 105 O.G. 261 (Comm'r Pat. 1903). Evidence other than declarations (the "previous evidence") was submitted, but given no weight, due to the Examiner's mistaken invocation of *res judicata. Res judicata* cannot be applied post-appeal to exclude evidence from consideration which the Board effectively directed the Examiner to consider. *See, On Request for Rehearing,* at 7 (May 21, 2007); *see, Decision of Petition,* at 2 (Sept. 17, 2007) (quoting May 21 decision and denying petition as moot because RCE already filed with new evidence). The previous evidence, standing alone or corroborating the pre-appeal declarations, removes McKendrick as a reference.

Our third thrust is, again, that the 33 words of McKendrick on which the Examiner relies need to be evaluated from the perspective of one of ordinary skill in the art, after considering evidence regarding the 1998 level of skill in the art. *Graham v. John Deere, 383 U.S.1, 17-18 (1966); KSR Int'l Co. v. Teleflex Inc., 550 U.S.#__, 127 S. Ct. 1727, 82 U.S.P.Q.2d 1385 (2007); Ex Parte Jud, 82 U.S.P.Q.2d 1280, 2007 Pat. App. LEXIS 9 (BPAI 2007).* The exhibits of record demonstrate that these inventors worked hard in 1998 and 1999 to advance the level of skill in the art. They were at the leading edge of technology, promoting something that now seems familiar. Their actual reduction to practice came before and their evangelism closely followed publication of the XML 1.0 recommendation on February 10, 1998. Deliberate effort is required to avoid applying hindsight to an article published in 1998 when ordinary programmers, tutored by these inventors, were trying to figure out what XML was, what tools and strategies Microsoft was promoting, and what the emerging alternatives offered. Thus far, neither the Examiner nor the Board has given any weight or expression to the 1998 level of skill in the art. As a result, McKendrick has been misinterpreted and misapplied to these claims.

For these three reasons, all previous rejections should be withdrawn, placing the claims in condition for allowance.

## Dispositive New Evidence Proves Actual Reduction to Practice in January 1998

We are submitting dispositive new evidence based on old corroborating computer files that were first provided to counsel after appeal. Former Veo employee Kevin Hughes happened to have an old computer on which copies of internal memoranda and programs from 1997-1998 were found. This historical material was analyzed, excerpted into exhibits and provided to the witnesses. The witnesses whose declarations we now submit include four out of five inventors and Kevin Hughes[2].

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[2] A petition to the Office of Petitions is being submitted at the same time, under the revised directive of MPEP § 715.04(I) at 700-281 (spanning left and right columns). All of the inventors except one signed the accompanying declarations. The missing inventor's physical address was located using property tax records. Packages were sent via Express Mail to both the missing inventor's PO Box and his physical address. Both packages were refused by inventor Terry Allen, with the notation "REF T.A." and returned by the USPS to counsel. This is a more elaborate procedure and complete proof than was necessary to satisfy the Board on appeal. Accordingly, the Office of Petitions is expected to direct that the remaining inventors' declarations be given the same weight as if all inventors had signed.

Alternatively, a non-inventor's declaration is submitted from a percipient witness, as authorized by the

### *The Declarations Prove Development and Workability of Claimed Inventions*

The declarations follow a consistent structure. Personal information appears in paragraphs 1-5, which varies by witness. For Kevin Hughes, this personal information includes authentication of memoranda and program listings that were reprinted from his computer. The declarations discuss Veo's shift from attempts to use CORBA technology in 1997 to development of a platform that used XML in 1997-1998, before W3C published the XML 1.0 recommendation in February 1998. *See,* ¶¶ *6-7.* Veo's development using XML responded to a long felt need for an object-oriented architectural framework for Internet commerce. *Id.*

The inventors developed and tested their technology for document exchanges and interface definitions using XML. They correctly understood the workability of their technology and its vast superiority to CORBA data object exchanges and CORBA data definitions, before W3C published the XML 1.0 recommendation. *See,* ¶¶ *7-8.* Two data structures defining transaction interfaces that used input and output documents, dated January 3, 1998 and July 25, 1998, are reproduced in the declaration and discussed. *See,* ¶¶ *9-10.* Each of these data structures is evidence of an actual reduction to practice, because the reprinted data structures were stored in computer memory, run on computers, tested, and accepted by the inventors as workable for their intended purpose. The witnesses identify and describe the corroborating exhibits, which include listings of program code from at least development versions 0.7.2, 0.7.5 and Ingram /01, all of which precede January 21, 1998. *See,* ¶¶ *11-15.*

The declarations emphasize preparation for a demonstration to important potential customer Ingram Micro and, particularly, a computer program file named "imdesc.xml" taken from version development Ingram /01. *See,* ¶¶ *14-16.* The demonstration to Ingram Micro was important because of a potential strategic relationship. Requirements and activities in preparation for the demonstration are

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statute § 102 and *Ex parte Foster,* 105 O.G. 261 (Comm'r Pat. 1903) (copy previously submitted). We point out that MPEP § 715.04 cites *Ex Parte Foster* as good authority, despite its early date. The statute only disqualifies claims from being granted if a reference predates the inventors' work. The statute does not limit the Applicants' proof to the safe harbor of rule 131 or to any particular evidence. The case *Ex Parte Foster* makes it clear that rule 131 is not an exclusive means of presenting evidence regarding inventors' work that predates a reference. The MPEP continues to endorse *Ex Parte Foster,* even though it was decided 105 years ago. A colleague of the inventors who retained a copy of early development code is a natural witness.

detailed in a memorandum. (Ex. F) Correlated with the memorandum, the computer program listings include modules with names that match every module listed as a requirement for the demonstration. (Exs. D, E, G, and H) The module "imdesc.xml" is referred to and explained in the demonstration preparation memorandum. (Ex. F) The data structure in "imdesc.xml" is an actual reduction to practice of a data structure within the scope of these claims, which the inventors used in methods.

The declarations refer to work three years later by members of W3C that promotes the use of data structures to define Web service interfaces by reference to input and output documents. *See,* ¶ *18.* The 2001 W3C data structures are essentially the same as those that Veo reduced to practice before January 21, 1998. This is proof either of copying or industry acceptance three years later of Veo's designs.

Finally, the declarations refute the Examiner's speculation that CBL was not tested or demonstrated to be a workable approach before the release of CBL version 1.1 or 2.0. The witnesses testify that CBL worked for many versions and many months prior to the September 1998 release of version 1.1.See ¶ *20.*

The accompanying exhibits include Veo internal memoranda (Exs. C & F), selected listings of computer programs that were written and tested on Veo's computers (Exs. D, E, G, H), and articles (Exs. A, B, I & J). For the program listings, a relative path name of the computer disk memory file directory from which the listing was printed is given in the exhibit list and reiterated in the declarations.

The declaration testimony proves existence and sufficient testing of a data structure and method within the scope of these claims to qualify as an actual reduction to practice. The date proven for the actual reduction to practice is before January 21, 1998, the scheduled date for demonstration of a system using the data structure. The exhibits reveal details of the data structure.

### *The "imdesc.xml" Exhibit Proves an Actual Reduction to Practice*
The declaration testimony regarding the file "**imdesc.xml**" (Ex. G) is dispositive. Testing and use of the data structure found in "imdesc.xml" is described in both the declarations (¶¶ 13-16) and an internal memorandum. (Ex. F at PDF 175) The internal memorandum (Ex. F at PDS 175-76) lists program modules required for the demonstration. Copies of these programs are provided in exhibits D, E, G, and H. The

internal memorandum concludes by giving January 21, 1998 as the planned date for demonstration of the system to Ingram Micro. (Ex. F at PDF 178)

The **imdesc.xml** file dated "2 Jan 1998" (Ex. G) provides details of functional data that defines an interface including input and output XML documents, per the independent claims and the dependent claims that call for use of XML. The interface definition in this file references so-called ".dtd" schema files that contain full definitions of the input and output XML documents. Copies of the "order.dtd" and "invoiceo.dtd" schema files are provided. (Ex. E, order.dtd at 38 / PDF 115; invoiceo.dtd at 29 / PDF 106)

The **imdesc.xml** file dated "2 Jan 1998" (Ex. G), when placed in memory and used in a test or demonstration, is an actual reduction to practice of a data structure and method. The listings of imdesc.xml and related computer programs were printed from a computer disk. The listed files have been stored in computer readable memories continuously for more than 10 years, since they were created in 1997-98. The witnesses tested and used these programs, because that was the core of their business.

One of skill in the art would see that these inventors had full possession of their interface definition technology on or before January 2, 1998, based on the progression of the data structures from Ex. G to Ex. J and on to page 45 of the original application. First, an excerpt from the computer program listing for a demonstration to Ingram Micro (hence "im"desc.xml), Ex. G at PDF 180 (Jan 2, 1998):

```
<service.set>
<service>
<service.name>Ordering and Fulfillment
</service.name>
<service.function.sequence>
 <service.function>
    <doctype from.party="any" to.party="ingram">order.dtd</doctype>
    <doctype from.party="ingram" to.party="any">ack.dtd</doctype>
 </service.function>
 <service.function>
    <doctype from.party="ingram" to.party="any">invoiceo.dtd</doctype>
    <doctype from.party="any" to.party="ingram">ack.dtd</doctype>
 </service.function>
 <service.function>
    <doctype from.party="ingram" to.party="any">shipnote.dtd</doctype>
 </service.function>
 <service.function>
    <doctype from.party="any" to.party="ingram">paynoteo.dtd</doctype>
    <doctype from.party="ingram" to.party="any">ack.dtd</doctype>
 </service.function>
</service.function.sequence>
</service>
```

Then, from Glushko's presentation at a conference, Ex. I at PDF 279 (July 25, 1998):

```
<service>
<service.name>Order Service</service.name>
<service.location>www.veosystems.com/order</service.location>
<service.op>
        <service.op.name>Submit Order</service.op.name>
        <service.op.inputdoc>po.dtd</service.op.inputdoc>
        <service.op.outputdoc>poack.dtd</service.op.outputdoc>
</service.op>
< service.op>
        < service.op.name>Track Order</service.op.name>
        <service.op.inputdoc>request.track.dtd<service.op.inputdoc>
        <service.op.outputdoc>response.track.dtd<service.op.outputdoc>
</service.op>
</service>
```

Finally, from the application, page 45 (Oct. 16, 1998):

```
<service>

<service.name>Order Service</service.name>

<service.location>www.veosystems.com/order</service.location>

<service.op>

<service.op.name>Submit Order</service.op.name>

<service.op.inputdoc>www.commerce.net/po.dtd</service.op.inputdoc>

<service.op.outputdoc>

        www.veosystems.com/invoice.dtd</service.op.outputdoc>

</service.op>

< service.op>

< service.op.name>Track Order</service.op.name>

<service.op.inputdoc> www.commerce.net

        /request.track.dtd<service.op.inputdoc>

<service.op.outputdoc>

        www.veosystems.com/response.track.dtd<service.op.outputdoc>

</service.op>

</service>
```

These three program fragments include functional data that defines interfaces to multiple functions, a.k.a. operations, which were useful for purchases and purchase fulfillment. The first two fragments illustrate a more elaborate document exchange than

the fragment from the patent application, because they include acknowledgements of input documents.

From January 2 to July 25, 1998, both dates prior to McKendrick, the service name changed from "Ordering and Fulfillment" to "Order Service". The input document name changed from "order.dtd" to "po.dtd". The definition of one output document changed for "ack.dtd" to "poack.dtd". In the October 16, 1998 application, corresponding elements retained the names "Order Service" and "po.dtd". The variations among the January, July and October data structures evince a common approach and three examples of data structures within the general scope of the claims. This proves early possession of working programs within the general scope of these claims, that were an actual reduction to practice and, therefore, remove McKendrick as a reference.

### *The New Declarations Read Testimony and Exhibits on the Claims and Respond to the Examiner's Arguments from the FOA*

The declarations go further than the narrative above in mapping the actual reduction to practice to the claims. In paragraph 19, the declarations include subparagraphs labeled to match individual claims. The testimony reads on the claims and references corroborating exhibits. Rather than repeating the whole text of the declarations, which we trust the Examiner to study, we reiterate here only the testimony that reads on the independent claims and a sample set of dependent claims.

Claim 1: In Exhibits G-I, both imdesc.xml and Slide 30 depict machine-readable interface specifications. The imdesc.xml file (Ex. G) typically is found in a file directory on a machine-readable storage media. It is functional data that defines an interface by reference to input and output documents. The PowerPoint Slide 30 (Ex. I) was taken from a computer file similar to imdesc.xml and pasted into the presentation. The archive for imdesc.xml and the PowerPoint presentation both were stored on machine-readable storage media. Both data structures define an interface to a transaction process. The imdesc.xml defines an interface with several service "functions". Slide 30 defines multiple service "operations". In imdesc.xml, one of the input documents is an "order"; in Slide 30, there is a "po", which is short for purchase order. In both transaction interface definitions, an acknowledgement is sent, an "ack" and a "poack", respectively. The input document definitions are referenced by "order.dtd", "invoiceo.dtd", "paynoteo.dtd", "po.dtd" and "request.track.dtd", which are data type definition (dtd) files. The output

<u>document definitions</u> are referenced by "ack.dtd", "poack.dtd" and "response.track.dtd". The January 1998 demonstration scenario (Ex. F, quoted in the declarations) makes it clear that these interface definitions were published to nodes on a network that might desire to invoke the functions for which interfaces were defined. The demonstration scenario (Ex. F) and slides (Ex. I) make it clear that this interface was hosted and accessible to a plurality of nodes on a network.

The mapping above is taken from the accompanying declarations. ¶ 19, claim 1. The corroborating computer program listings from January and July, 1998 (Exs. G and I), predate McKendrick. This testimonial and documentary evidence is consistent with the previously submitted declarations and establishes a date of actual reduction to practice before January 21, 1998.

<u>Responding</u> to the Examiner's view that written descriptions fail to qualify as constructive reductions to practice (FOA at 19), we point out that <u>historical computer program listings are good evidence that a program ran on a computer, which is an actual reduction to practice</u>, not a constructive reduction. Only museums keep ten year old computers in service and we could not submit an old computer via the PTO's Electronic Filing System if we tried. So, it makes sense for us to submit computer program listings and testimony that the computer programs ran on computers. The computer program listings are more than adequate corroboration for the declaration testimony of an actual reduction to practice.

<u>Responding</u> to the Examiner's conjecture (FOA at 17-19) that CBL was not recognized as satisfactory for its intended purpose until version 1.1, released in September 1998, or version 2.0 released in January 1999, we provide the inventors' contrary testimony. As addressed below, the Examiner's argument about when CBL worked is not supported by the quoted passages. <u>The inventors' declarations, in their final paragraph (¶ 20) make it clear that "CBL worked for its intended purpose for many months and many versions prior to the September 1998 release of public version 1.1</u>." Since we have testimonial evidence on point, the Examiner's conjecture must be set aside. Moreover, code samples of CBL from development versions 0.7.2, 0.7.5 and Ingram /01 accompany the declarations and predate January 21, 1998. The declarations give clear testimony that these code samples were understood to work as intended, after testing and preparation for a demonstration to Ingram Micro that was

scheduled for January 21, 1998. <u>The record now includes working versions of CBL and related programs from December 1997 and January 1998.</u>

The <u>Examiner's requirement</u> (FOA at 17, bottom) that Applicants need "evidence of a complete product that is guaranteed that it worked with testing," misstates the applicable rule of law. <u>Applicants need not have completed a commercial product and need not have guaranteed that it worked based on extensive testing</u>. "[I]n order for there to be a reduction to practice, there is no requirement that the invention when tested be in a commercially satisfactory stage of development." *King Instrument v. Otari Corp.*, 767 F.2d 853, 861, 226 U.S.P.Q. 402 (Fed. Cir. 1985) *cert. denied* 475 U.S. 1016 (1986). "Some devices are so simple and their purpose and efficacy so obvious that their complete construction is sufficient to demonstrate their workability." *Mahukar v. C.R. Bard, Inc.*, 79 F.3d 1572, 1578, 38 U.S.P.Q.2D 1288 (Fed. Cir. 1996) (*citing King Instrument*). A demonstration prototype is enough, such as the prototype prepared for demonstration to Ingram Micro. The witnesses have testified that <u>they tested the prototype sufficiently</u> to appreciate that it was workable. While preparation for the important demonstration to Ingram Micro manifestly involved substantial effort and testing, there is no evidence of record to suggest that the elegant data structure reproduced above would have required any testing to show that it would work for its intended purpose. Three years later, a W3C note regarding WSDL version 1.1 (Ex. L at PDF 285-86) confirmed that the inventors were correct when they understood that their approach worked for its intended purpose – the note promotes use of virtually the same data structure as in "indesc.xml". While we have not attempted to prove that Veo had a completed product in January 1998, <u>we have proven testing and appreciation that the inventive data structure would work</u>, which is enough to remove McKendrick as a reference when the correct legal standard is applied.

The <u>Board's decision</u> *On Request for Rehearing*, at 3 (May 21, 2007), quotes *In re Stempel*, 241 F.2d 755, 759-60, 113 U.S.P.Q. 77, 81 (CCPA 1957) as only requiring Applicants to show "priority with respect to so much of the claimed invention as the [McKendrick] reference happens to show." The declarations and exhibits make a much more complete showing than McKendrick of a computer program in memory with a data structure that defined a transaction interface as including input and output documents. *Discussed, infra,* at 19. We have proven that Veo reduced to practice much more than

McKendrick describes, as *In re Stempel* allows us to, months before McKendrick was published.

When the new evidence related to claim 1 is considered and the proper legal standard is applied, the Examiner should find that Applicants successfully have sworn behind McKendrick and removed it as a reference. Therefore, claim 1 is in condition for allowance.

Claims 8-12: The input and output documents in both "imdesc.xml" (Ex. G) and Slide 30 (Ex. I) are defined as XML documents. Generally, XML documents compliant with the February 1998 recommendation can be parsed or unparsed data. XML documents may encode text characters and the text characters may provide a natural language word. XML documents generally include markup data to identify sets of storage units. The data structures considered with an understanding of the XML standard show that the inventors' working programs incorporated the features of claims 8-12, thereby removing McKendrick as a reference.

Responding to the Examiner's argument (FOA at 16) regarding claim mapping, the new declarations are mapped to both independent and dependent claims. However, there is no legal requirement that this be done in the declarations. The Examiner does not cite any case or refer to any MPEP section. The cases cited by the Board give Applicants the option of explaining documentary evidence either in their argument (*Decision on Appeal*, at 7 (Aug. 31, 2006)) or in the declarations. *Id.*, at 9. The Examiner's requirement for the mapping to be in the declarations goes beyond what the case law requires.

We have gone beyond what the case law or the Board requires to remove McKendrick as a reference against the dependent claims. This paper reiterates the evidence that reads the actual reduction to practice on dependent claims 8-12. The declarations are similarly mapped to the remaining dependent claims and incorporated herein by reference. Therefore, the dependent claims are in condition for allowance.

Claim 61: Independent method claim 61 is a corollary to the data structure of claim 1. The evidence described in the context of claim 1 generally applies to claim 61. In addition, the declarations show that, in the course of creating "imdesc.xml" (Ex. G) and Slide 30 (Ex. I), the authors of those documents went through the process of defining machine readable interface definitions including an input and output document.

Veo's transaction interface definition data structures were provided to network nodes that requested them. This is sufficient evidence, viewed in light of the extensive exhibits provided, of actual reduction to practice of the method of claim 61.

We see no additional arguments in the FOA that the Examiner might apply particularly to claim 61, beyond the arguments to which we responded above. Therefore, claim 61 is in condition for allowance.

<u>Other claims</u>: The declarations are similarly direct about reading Veo's actual reduction to practice on the remaining claims.

### *The New Evidence Clearly Removes McKendrick as a Reference*

Therefore, the declarations and extensive exhibits remove McKendrick as a reference and put the claims in condition for allowance.

## *Res Judicata* <u>Does Not Apply when the Board Directs</u> <u>Consideration of New Evidence</u>

The <u>Examiner misapplied *res judicata*</u> (FOA at 2-3) and appears to have used it as a reason not to consider the RCE evidence. The Examiner correctly referred to MPEP § 706.03(w), but missed the predominance of cases listed in the right hand column in which "*res judicata* rejections were reversed." The MPEP reports that new evidence was not subject to *res judicata* and that rejections on that basis were reversed in the cases of *In re Herr*, 377 F.2d 610, 153 USPQ 548 (CCPA 1967); *In re Russell*, 439 F.2d 1228, 169 USPQ 426 (CCPA 1971); and *In re Ackermann*, 444 F.2d 1172, 170 USPQ 340 (CCPA 1971). <u>More recently, the Federal Circuit has reaffirmed that</u> <u>new evidence cannot be excluded by a *res judicata* rejection.</u> *In re Donohue*, 766 F.2d 531, 533, 226 U.S.P.Q. 619 (Fed. Cir. 1985).

The legal principle of *res judicata* would bar any consideration of new evidence, if it applied. The Board and the Chief Administrative Judge <u>expressly invited Applicants to</u> <u>submit evidence to the Examiner</u>. "We note that if Appellants wish to have the newly presented evidence considered by the Examiner, the proper procedure is to file a Request for Continued Examination (RCE) under 37 C.F.R. § 1.114."[3] Application of *res judicata* to exclude evidence is wholly inconsistent with the Board's rulings.

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[3] On *Request for Rehearing* at 7 (May 21, 2007); see, *Decision of Petition*, at 2 (Sept. 17, 2007) (quoting May 21 decision and denying petition because RCE already filed with new evidence).

It was an <u>error for the Examiner to raise *res judicata*</u> as barring consideration of evidence referred by the Board back to the Examiner and additional evidence presented with the RCE. The <u>excluded RCE and appeal evidence proves the inventors'</u> <u>possession of their claimed invention prior to McKendrick,</u> and shows how one of ordinary skill in the art would have understood McKendrick. Therefore, it was prejudicial error to exclude this evidence from consideration.

## The FOA Erroneously Excluded the RCE and Appeal Evidence, Contrary to Law and to the Board Directions

The Board sustained rejection of claims 1-16, 61-72 under 35 U.S.C. § 103(a) as unpatentable over McKendrick, *Banks begin to play with XML*, Bank Technology News, Sep 1998, Vol. 11, Iss. 9, pg. 6, 2 pgs, in view of W3C, *Extensible Markup Language (XML) 1.0*, 2/10/98, pages 1-37. We responded (*Resp.* at 7 *et seq.*) by submitting evidence for the Examiner to consider *de novo*, as the Board directed.

### RCE Evidence Proved Actual Reduction to Practice on or Before July 25, 1998

The Examiner <u>erred in failing to consider clear evidence of a public</u> <u>demonstration</u> that Veo had reduced its inventive data structure to practice two months before McKendrick published. The first set of RCE evidence, which the Examiner erroneously disregarded, included Glushko's Slides (Ex. I), 1999 Article (Ex. B) and 2005 Book (Ex. V). (*Resp.* at 8-11 & 15-18) The Examiner excluded the Glushko evidence as improperly submitted (FOA at 16), even though the Board reacted to the same evidence by directing us to have the Examiner consider it.

Dr. Glushko revealed an inventive data structure at a conference on July 25, 1998. This is documented in public reports of the conference. (Ex. I; *Resp.* at 249) Public reports of the inventive data structure and its use in demonstration projects are <u>proof under 35 USC section 102 (*Ex Parte Foster*) that Veo and Dr. Glushko were in</u> <u>possession of the claimed invention two months before publication of McKendrick.</u> The elegant data structure revealed at the conference, when placed in memory, self-evidentially worked as intended. Dr. Glushko did not find it necessary to do more than present the data structure on a PowerPoint slide in order to demonstrate its workability to the audience.

The Examiner gives bullet point arguments why the "submission is not proper", but does not offer any supporting case law, PTO rule or MPEP passage. The Examiner has <u>no legal basis for refusal to consider this non-declaration evidence</u>. Because the Examiner argued that the submission was improper, she did not consider or criticize the evidence and did not challenge the conclusions drawn from it. There are no arguments regarding the quality of the evidence that call for a response, only procedural arguments.

Responding to the <u>Examiner's procedural arguments</u> (FOA at 16) that claim mapping and reference to documentary evidence "should" be included in the declarations, "should" does not mean "must." The cases cited by the Board in the appeal decision make it clear that the Applicants have the <u>option of explaining the evidence</u> either <u>in their briefs</u> or in declarations. *Decision on Appeal*, at 7 & 9.

The Examiner's next <u>argument</u> (FOA at 16) is that mapping needs only relate the evidence to the claims, not to the reference on which the Examiner relies. <u>We have done exactly the mapping</u> that the Examiner urges. (*Resp.* at 15-18) Our repeated reference in the Response to "removing McKendrick as a reference" was part of the conclusion that we drew for each claim; it did not relate to using McKendrick as a yardstick for what Glushko's Slides, 1999 Article and 2005 Book needed to show. Therefore, the Examiner's argument was misdirected. It also was mistaken.

The Board quoted a passage from *In re Stempel* (*On Request for Rehearing*, at 3) that has been widely interpreted as allowing Applicants to measure the sufficiency of their proof under rule 131 by reference to what the Examiner cited. The quoted passage from *In re Stempel* <u>literally required us only to show "priority with respect to so much of the claimed invention as the [McKendrick] reference happens to show</u>." This implies that if the cited reference were thorough and detailed, applicants would need to submit thorough and detailed evidence. Conversely, when the Examiner relied on just 33 words in a popular press article and concluded that one of skill in the art would understand from just 33 words that Microsoft and others were using XML in a particular way, the Examiner set a VERY LOW hurdle for the Applicants to clear. *C.f., Ex Parte Jud, supra* (emphasizing study of application and references of record to determine level of skill in the art). If just 33 words convey that someone has reduced the claimed invention to practice, then the transcript of Glushko's remarks, plus his slides, plus his technical

writings before any issue arose should overwhelmingly prove possession by Glushko's team of the invention before McKendrick. So it is not true, as the Examiner argued (FOA at 16), that we should ignore how the Examiner judged McKendrick. In colloquial terms, what's good for the goose is good for the gander. If 33 words from McKendrick arguably prove public possession of what we claim, our more extensive evidence is overwhelming.

From the evidence of Glushko's Slides, 1999 Article and 2005 Book, it is clear that, prior to July 25, 1998, Glushko's team was successfully running programs on computers that were within the scope of these claims. We mapped this RCE evidence to individual claims in our Response. Our evidence of record has not been criticized or diminished and therefore stands as a basis under *Ex Parte Foster* to remove McKendrick as a reference.

### RCE Evidence Corroborates the Pre-Appeal Declarations

The Board's original decision (*Decision on Appeal*, at 8-9) criticized the pre-appeal declarations for not providing more evidence about the "first draft of CBL," which was mentioned in the corroborating status report. We responded to the Board raising this new issue during appeal by submitting historical texts that explained how these inventors spent 1998-99 educating those of skill in the art about "CBL". After the appeal was remitted, we submitted the evidence regarding CBL to the Examiner. In addition to Glushko's Slides, 1999 Article and the 2005 book, we presented Sall's Book, the Seybold Transcript, xCBL.org, Allen and Bosak as evidence regarding development of CBL in 1997 and read this corroborating evidence together with the pre-appeal declarations on the claims. (*Resp.* at 12-14 & 18-25)

The Examiner erred by failing to consider whether the RCE and appeal evidence corroborated the pre-appeal declarations. The Examiner's role was to study and judge the evidence that we presented. Judging is unlike making an argument, because all of the evidence needs to be discussed. In the final office action, the Examiner did not refer to, consider or weigh the evidence that we presented. That was reversible error.

The Examiner relied on non-declaration, non-prior art evidence as a basis for rejection, even while she ignored the non-declaration evidence that Applicants introduced. The Examiner cited the publication, Glushko, *How XML Enables Internet Training Communities and Marketplaces"*, GCA Conferences, XML 99, Philadelphia

(Dec. 1999) accessible at http://www.infoloom.com/gcaconfs/WEB/ philadelphia99/glushko.HTM. (FOA at 17) This publication 14 months after the application was filed is not prior art. The publication was selectively quoted, ignoring <u>the immediately preceding paragraph</u> that <u>begins, "The oldest attempt to attack the problem of interoperability</u> among vertical XML commerce applications <u>is Commerce One's Common Business Library [CBL]</u>." In this article, Glushko unequivocally attributed inventive work to Commerce One's predecessor, Veo and denied invention by others. The Examiner misevaluated this article, having failed to consider it as a whole.

The selected quote does not prove what the Examiner argues it does. It is better understood as saying that the <u>master software architects at Veo developed a sophisticated architecture that worked, but decided to simplify it in a commercial product</u> for so-called newbies to use. "Because of this research pedigree, early versions of CBL strove for logical completeness, expressiveness, and compactness to test the abstract modeling power of XML for electronic commerce and to identify requirements for development tools and runtime support. CBL 1.0 prototyping and application experience suggested that it was too abstract and powerful for XML 'newbies' and for people with traditional EDI backgrounds". What this passage proves is that CBL 1.0, which predated CBL 1.1, ran in early versions (e.g., versions 0.7.2, 0.7.5 and Ingram /01), prototypes and applications. For instance, before September 1, 1998, CBL was used in "several demonstration projects, one with the federal government and one with the consortium of Japanese companies," according to Dr. Glushko's remarks on September 1, 1998. (Ex. K; *Resp.* at 11) The demonstration projects were identified as GSA catalog interoperability and Project Seitai in Dr. Glushko's slide 31, on July 25, 1998. (Ex. I; *Resp.* at 11) The early versions of CBL provided experience for simplifying CBL in a commercial product, according to the quote. It appears that the Examiner applied the mistaken rule (FOA at 17 bottom), which would require Applicants to have completed a commercial product, rather than a prototype, in order to prove a reduction to practice. Again, as a matter of law, <u>the prototype IS ENOUGH and a commercial product is NOT REQUIRED</u> for an actual reduction to practice. *King Instrument, supra,* 767 F.2d at 861; *see, supra* at 15. The quote provides clear evidence of a tested prototype, which corroborates the pre-appeal declarations.

The <u>evidence</u> that we presented from Glushko's Slides, 1999 Article and 2005 book, and from Sall's Book, the Seybold Transcript, xCBL.org, Allen and Bosak (*Resp. at 8-14*) <u>regarding Veo's ground breaking development in 1997</u> of CBL and related technologies was <u>not criticized by the Examiner or minimized in any way</u>. On this record, the evidence presented stands as credible and probative. It explains that working versions of CBL were available in late 1997 and early 1998. The excluded evidence completes the corroboration of the original declarations that the Board requested regarding "the first draft of CBL" and answers questions raised by the Board for the first time on appeal. In the RCE, we followed the Board's direction to submit our new evidence to the Examiner. The Examiner's <u>decision to exclude evidence (*Resp.* at 8-14), which completes the corroboration of the pre-appeal declarations (*Resp.* at 18-25) and to ignore our reading of the corroborated pre-appeal declarations on the claims was reversible error</u>.

### RCE Evidence Establishes the 1998 Level of Skill in the Art as Immature, as Looking to These Inventors to Lead the Industry

The third set of evidence that we presented (*Resp.* at 25-34) related to the 1998 level of skill in the art, which determines the perspective from which the brief quotation that McKendrick attributed to Microsoft must be considered. We cited and explained *Ex Parte Jud, supra* (*Resp.* at 26-27), in which the Board explained how to judge the level of skill in the art.

The <u>Examiner erred in not discussing the 1998 level of skill in the art in view of the new evidence</u>. From *Graham v. John Deere* forward, discussing the level of skill in the art has been considered fundamental to analysis of obviousness. *See, KSR, supra; Ex Parte Jud, supra.* It again appears that the Examiner mistakenly relied on *res judicata*, because no other basis was given for excluding the new evidence. The Examiner's own opinion of how, with hindsight, the articles might be understood (FOA at 20) is not a legal substitute for reading McKendrick from the perspective of one of ordinary skill. Ignoring the 1998 level of skill in the art and expressing the Examiner's own opinion was reversible error.

One particularly telling bit of evidence from September 1, 1998 (McKendrick was published in September 1998) was a question from the audience to Dr. Glushko that asked whether XML was "stable enough" to warrant being used as a development

platform. (Ex. K; *Resp.* at 11) This evidence and the other evidence that we detailed (*Resp.* at 26-33) shows that these inventors were leading the industry in XML technology development, far ahead of the level of ordinary skill.

In the months immediately after W3C published the XML 1.0 recommendation, Microsoft described approaches that people might try in the future, not usually things that already had been done. (Resp. at 30-33) One of ordinary skill might have begun with report of Microsoft's vision from McKendrick or another source, but visionary puffery would quickly have given way to determining what tools Microsoft was providing and experimenting with the tools. (Exs. P-U) The logical path from Microsoft's musing forward would have been for one of ordinary skill to use RPC-XML tools that Microsoft was promoting and try to build with those tools. The technical documentation that we have provided shows that RPC-XML was a much different approach than we claimed.

The 1998 level of skill in the art combined with clear evidence that Microsoft was promoting RPC-XML, belies the conclusion of the Examiner and Board that the 33 words of McKendrick would have been understood by one of ordinary skill as enabling practice of the claimed data structure and method. Our 1998 level of skill evidence has not been criticized or diminished in any way. It proves that one of skill in the art would have understood Microsoft's comments about the future of XML, reported by McKendrick, as puffery or as promoting use of an RPC interface implemented with RPC-XML tools, and NOT as promoting or enabling a document style interface, which Veo was evangelizing at industry conferences. Therefore, the Examiner and Board's interpretation of McKendrick was mistaken because it was inadequately informed regarding the 1998 level of skill in the art. It was reversible error for the Examiner to ignore the 1998 level of skill evidence, to fail to apply perspective of one of ordinary skill, and to fail to reconsider the 33 words of McKendrick, given the new level of skill evidence.

## CONCLUSION

Applicants respectfully submit that the pending claims are now in condition for allowance and thereby solicit acceptance of the claims as now stated.

Applicants strongly suggest an interview, because the record is extensive and packed with evidence.  The undersigned can ordinarily be reached at his office at (650) 712-0340 from 8:30 a.m. to 5:30 p.m. PST, Monday through Friday, and can be reached at his cell phone at (415) 902-6112 most other times.

*Fee Authorization.*  The Commissioner is hereby authorized to charge underpayment of any additional fees or credit any overpayment associated with this communication to Deposit Account No. 50-0869 (OIN 1004-1)

Respectfully submitted,

Dated:  21 July 2008

/Ernest J. Beffel, Jr./
Ernest J. Beffel, Jr.
Registration No. 43,489

Haynes Beffel & Wolfeld LLP
P.O. Box 366
Half Moon Bay, CA  94019
Telephone:   (650) 712-0340
Facsimile:    (650) 712-0263